

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 123)

FOIL the expressions shown below:

1. $(8x + 7)(8x - 7)$

$$\begin{aligned} & (8)(8)x^2 + (8)(-7)x + (7)(8)x + (7)(-7) \\ & (64)x^2 + (-56)x + (56)x + (-49) \\ & 64x^2 - 49 \end{aligned}$$

2. $(-5x - 6)(7x + 4)$

$$\begin{aligned} & (-5)(7)x^2 + (-5)(4)x + (-6)(7)x + (-6)(4) \\ & (-35)x^2 + (-20)x + (-42)x + (-24) \\ & -35x^2 - 62x - 24 \end{aligned}$$

3. $(-7x + 9)(4x - 5)$

$$\begin{aligned} & (-7)(4)x^2 + (-7)(-5)x + (9)(4)x + (9)(-5) \\ & (-28)x^2 + (35)x + (36)x + (-45) \\ & -28x^2 + 71x - 45 \end{aligned}$$

4. $(-3x - 7)(3x - 2)$

$$\begin{aligned} & (-3)(3)x^2 + (-3)(-2)x + (-7)(3)x + (-7)(-2) \\ & (-9)x^2 + (6)x + (-21)x + (14) \\ & -9x^2 - 15x + 14 \end{aligned}$$

5. $(4x - 9)(-6x + 7)$

$$\begin{aligned} & (4)(-6)x^2 + (4)(7)x + (-9)(-6)x + (-9)(7) \\ & (-24)x^2 + (28)x + (54)x + (-63) \\ & -24x^2 + 82x - 63 \end{aligned}$$

FOIL the expressions shown below:

6. $(-3x + 9)(3x + 6)$

$$\begin{aligned} &(-3)(3)x^2 + (-3)(6)x + (9)(3)x + (9)(6) \\ &(-9)x^2 + (-18)x + (27)x + (54) \\ &-9x^2 + 9x + 54 \end{aligned}$$

7. $(-5x + 4)(-3x + 5)$

$$\begin{aligned} &(-5)(-3)x^2 + (-5)(5)x + (4)(-3)x + (4)(5) \\ &(15)x^2 + (-25)x + (-12)x + (20) \\ &15x^2 - 37x + 20 \end{aligned}$$

8. $(6x + 2)(-8x - 5)$

$$\begin{aligned} &(6)(-8)x^2 + (6)(-5)x + (2)(-8)x + (2)(-5) \\ &(-48)x^2 + (-30)x + (-16)x + (-10) \\ &-48x^2 - 46x - 10 \end{aligned}$$

9. $(2x - 9)(2x + 4)$

$$\begin{aligned} &(2)(2)x^2 + (2)(4)x + (-9)(2)x + (-9)(4) \\ &(4)x^2 + (8)x + (-18)x + (-36) \\ &4x^2 - 10x - 36 \end{aligned}$$

10. $(8x + 5)(8x + 3)$

$$\begin{aligned} &(8)(8)x^2 + (8)(3)x + (5)(8)x + (5)(3) \\ &(64)x^2 + (24)x + (40)x + (15) \\ &64x^2 + 64x + 15 \end{aligned}$$